200

l_2

l_1

EDGE O   PIVOT

100kg   100kg

SHEAR IN BOLTS $\dfrac{9.81 \times 100kg}{4} = 245.25N$

MAX BOLT TENSION $= 200 \times 100 \times 9.81 = 2\mu l_1^2 + 2\mu l_2^2$

ASSUME $l_1 = 25mm$

∴ $l_2 = 125mm$

$\mu = 6.037$

∴ MAX TENSION IN BOLTS $= 754N = 6.037 \times 125mm$

$\mu =$ LOAD ON BOLT due to applied moment at a UNIT DISTANCE FROM edge O.